

AMENDMENTS TO THE CLAIMS:

The listing of claims shown below will replace all prior versions, and listings, of claims in the Application:

Claim 1 (Currently Amended) A method for the characterization of a particle comprising the steps of:

observing a first physical position of a particle,

optically illuminating the particle to subject it to ~~an~~ a non-trapping optical force,

observing the second physical position of the particle, and

characterizing the particle utilizing the ~~based at least in part upon~~ reaction of the particle to the optical force.

Claim 2 (Currently Amended) The method of claim 1 wherein the optical illumination ~~includes~~ comprises an optical gradient field.

Claim 3 (Original) The method of claim 2 wherein the optical gradient field is a moving optical gradient field.

Claim 4 (Currently Amended) The method of claim 1 wherein the optical illumination ~~includes~~ comprises an optical scattering force field.

Claim 5 (Currently Amended) The method of claim 1 wherein the optical illumination ~~includes~~ comprises a moving optical gradient force field and another force.

Claim 6 (Original) The method of claim 1 wherein the first position and second position are different.

Claim 7 (Original) The method of claim 1 wherein the positions are the same.

Claim 8 (Currently Amended) The method of claim 7 wherein the characterization ~~includes~~ comprises non-movement as indicative of the state.

Claim 9 (Currently Amended) The method of claim 7 wherein the characterization ~~includes~~ comprises a non-positional parameter.

Claim 10 (Original) The method of claim 9 wherein the non-positional parameter is rotation of the particle.

Claim 11 (Currently Amended) The method of claim 6 wherein the characterization ~~n~~ involves a comparison of the first position and the second position.

Claim 12 (Original) The method of claim 11 wherein the amount of difference of movement indicates a characterization state.

Claim 13 (Original) The method of claim 11 wherein the direction of movement is indicative of a characterization state.

Claim 14 (Original) The method of claim 1 wherein the characterization utilizes the optophoretic constant of the particle.

Claim 15 (Cancelled)

Claims 16-43 (Cancelled)

Claim 44 (Previously Presented) The method of claim 1, wherein the reaction of the particle to the optical force is dependent at least in part on the dielectric constant of the particle.

Claim 45 (Previously Presented) The method of claim 1, wherein the particle is a cell.

Claim 46 (Previously added) The method of claim 45, wherein the cell is unlabeled.

Claims 47-81 (Cancelled)